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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,299

08/18/2005

Robert Lahmann

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EXAMINER

MARC, MCDIEUNEL

ART UNIT

PAPER NUMBER

3664

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/523,299		LAHMANN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	MCDIEUNEL MARC		3664	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02/06/2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 10-18 are pending.
2. The rejection to claims 10 and 18 under 35 U.S.C. 103(a) as being unpatentable over Breed US 2006/0232052 A1 (US 20060253239 A1) is maintained.
3. The rejection to claim 11 under 35 U.S.C. 103(a) as being unpatentable over Breed US 2006/0232052 A1 as applied to claim 10 above, and further in view of Ide et al., (US 6,167,335) is maintained.
4. The rejection to claims 12 and 17 under 35 U.S.C. 103(a) as being unpatentable over Breed US 2006/0232052 A1 as applied to claim 10 above, and further in view of Schubert et al. (US 7269483 B2) is maintained.
5. The rejection to claims 13-16 under 35 U.S.C. 103(a) as being unpatentable over Breed US 2006/0232052 A1 in view of Schubert et al. as applied to claim 12 above, and further in view of Ide et al. is maintained.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 10-18 are rejected under 35 U.S.C. 102(e) as being anticipated by **Breed (US 2006/0232052 A1)**.

**As per claims 10, Breed US 2006/0232052 A1**, teaches substantially an apparatus for detecting a rollover event (see sections [0276 and 0978], and Fig. 1A), comprising: at least one first acceleration sensor in a vertical direction of a vehicle (see section [0954], wherein “An IMU using up to three accelerometers” which can be disposed in any position); at least one second acceleration sensor in at least one horizontal direction of a vehicle (see sections [0954 and 0978], wherein “An IMU using up to three accelerometers” which can be disposed in any position); and a processor for detecting an inertial event as a function of a first signal of the at least one second acceleration sensor (see section [0954], wherein “An IMU using up to three accelerometers” which can be disposed in any position), and after detection of the inertial event (see section [1024], wherein “In the event that it cannot be prevented, the deployment side curtain airbags can be initiated in a timely manner.”), evaluating a second signal from the at least one first acceleration sensor for detecting the rollover event (see section [0276 and 0978], and Fig. 1A); a processor triggering a restraint device as a function of the first signal and the second signal (see section [0976], wherein “the same processor can be used for many such diagnostic problems.” or multiple signals).

**As per claim 18, Breed US 2006/0232052 A1**, teaches that further comprising at least one plausibility sensor (see sections [0276 and 0978], particularly sensors).

**As per claim 11, Breed US 2006/0232052 A1**, teaches essential features substantially as claimed, but fail to teach a system wherein the processor detects the inertial event one of in the form of the deployment of the restraint device in the event of one of a head-on crash and a lateral crash and as a function of an acceleration signal in one of a longitudinal direction of the vehicle and a transverse direction of the vehicle (see sections [0978 and 1024]).

**As per claim 12, Breed US 2006/0232052 A1**, teaches wherein the processor performs the evaluation by examining characteristics, a system comprising an acceleration in the vertical direction of the vehicle in the inertial event is negative and has a positive gradient (see sections [0276 and 0978], as noted above).

**As per claim 17, Breed US 2006/0232052 A1**, teaches a system wherein in an absence of a detection of the rollover event (see section [0276 and 0978], and Fig. 1A), the processor is capable, after the first inertial event, of monitoring for a new inertial event (see section [1024], wherein predicting rollover in advance has been considered as monitoring).

**As per claim 16, Breed US 2006/0232052 A1**, teaches wherein the at least one first acceleration sensor includes an offset control which is embodied as slow (see section [1026], wherein stability control has considered as offset control).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Breed** in view **Lin et al.** (US 2006/0100781 A1).

**As per claims 13-15, Breed US 2006/0232052 A1**, teaches essential features of the invention substantially as claimed, but fail to teach a system a wherein the processor evaluates at least one of an acceleration in the transverse direction of the vehicle and a rotation rate about a vehicle longitudinal rate, in order to detect a lateral motion; and wherein the processor evaluates a vehicle acceleration in the longitudinal direction of the vehicle; a system a low-pass filter for

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filtering an acceleration in the vertical direction of the vehicle, in order to extract a gravitational acceleration.

**Lin et al., US 2006/0100781 A1**, teaches substantially a system a wherein the processor evaluates at least one of an acceleration in the transverse direction of the vehicle and a rotation rate about a vehicle longitudinal rate (see section [0350]), in order to detect a lateral motion; and wherein the processor evaluates a vehicle acceleration in the longitudinal direction of the vehicle (see section [0238]); a system a low-pass filter for filtering an acceleration in the vertical direction of the vehicle (see section [0504]), in order to extract a gravitational acceleration (see sections [0134] and [0505]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the type vehicle of Breed, with the vehicle type of Lin et al., because this modification would have introduced gravitation acceleration into Breed's, thereby improving the efficiency and the reliability of detecting a rollover event.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MCDIEUNEL MARC whose telephone number is (571)272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/McDieunel Marc/**

Examiner, Art Unit 3664

Monday, May 18, 2009

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664